



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/981,444

10/17/2001

Graham Taylor

0476-2044.1

5834

23644 7590 12/07/2009  
BARNES & THORNBURG LLP  
P.O. BOX 2786  
CHICAGO, IL 60690-2786

EXAMINER

CHOUDHURY, AZIZUL Q

ART UNIT

PAPER NUMBER

2445

NOTIFICATION DATE

DELIVERY MODE

12/07/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Patent-ch@btlaw.com



***Detailed Action***

This office action is in response to the correspondence received on September 22, 2009.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-9, 18, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sciacca (US Patent No: 6,760,761) in view of Thompson et al (US Patent No: 6,189,038) hereafter referred to as Sciacca and Thompson, respectively.

1. With regards to Claims 1, 20 and 22 the Sciacca discloses through Thompson: a method comprising: generating structured meta-data providing at least one semantic information element describing a characteristic of an interface capability

of each of a first entity and at least one other entity, said entities seeking to communicate across a network, wherein an interface of the first entity has at least one different characteristic from an interface of the second entity (*Sciacca teaches network devices that have different configurations (different characteristics); see column 2, lines 28-38, Sciacca. The devices have structured meta-data associated with them; see column 5, lines 3-15, Sciacca*); collating the semantic information elements of said first entity where possible with corresponding semantic information elements of said at least one other entity (*Sciacca teaches how device configurations stored and managed (collated) based on semantics; see column 5, lines 3-15, Sciacca*); analyzing said collated semantic information elements to establish the extent to which the interface capabilities of said entities are compatible (*Sciacca teaches constraint checks; see at least column 5, lines 55-66, Sciacca*); and generating in accordance with said established compatibility the adaptive software interface for said entities, such that the entities are able to communicate despite the fact that the interface capabilities of the entities are different (*Sciacca teaches the adjustment of device configurations so that they can comply with the needs of the infrastructure/network (in other words, so that they can communicate with the other network devices); see column 6, lines 13-22, Sciacca*)

*While Sciacca teaches the adjustment of device configurations (using structured meta-data) to ensure proper communication between devices within the network, Sciacca does not explicitly cite the use of the device interfaces. In*

*the same field of endeavor, Thompson also teaches a device configuration adjustment system. Within Thompson's disclosure it is taught how devices have translators (interfaces) to allow devices to understand otherwise foreign communications; see column 3, lines 5-23, Thompson. The translators/interfaces work in conjunction with each network device's canonical data structure (structured meta-data). The application of translators/interfaces to the network devices allows each network device (even if they possess different communication characteristics) to communicate properly with other network devices. Therefore it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Sciacca with those of Thompson for the purpose of allowing asynchronous messages to be exchanged between applications that operate in accordance with different protocols; see column 4, lines 8-10, Thompson.*

2. With respect to Claim 2, the Sciacca discloses through Thompson a protocol where entities exchange interfaces via a so-called Lookup Service, thus disclosing: wherein the step of collating occurs dynamically during a preliminary exchange between the two entities prior to an interface being established between the two entities (*Sciacca teaches devices looking up configuration information; see column 4, lines 52-66, Sciacca*).

3. With regards to Claim 3, the Sciacca discloses through Thompson said structured meta-data includes associated meta-data for at least one said semantic information element (*see column 5, lines 5-6, Sciacca*).
4. With regards to Claim 4, the Sciacca discloses through Thompson the semantic information element describing the characteristics of said adaptive interface is provided in said meta-data in a form independent of the version of software used to generate said metadata (*Sciacca teaches independently stored meta-data; see column 5, lines 3-15, Sciacca. Thompson teaches canonical data structure associated with the translators/interfaces; see column 3, lines 23-35 and column 8, lines 26-32, Thompson*).
5. With regards to Claim 5, the Sciacca discloses through Thompson semantic information compiled into classes by a Java compiler, thus disclosing: wherein said semantic information element is generated by a compiler receiving input data from an interface description and a code template (*Java is a standardized configuration language; see column 7, lines 50-51, Sciacca*).
6. With regards to Claim 6, the Sciacca discloses through Thompson said interface description includes a model of the data to be communicated across the interface and a code template (*see column 3, lines 13-23, Sciacca*).

7. With regards to Claim 7, the Sciacca discloses through Thompson a protocol that initially registers entity descriptions and interfaces, thus disclosing: wherein said semantic information element provided by said meta-data has a form which can be mapped to an appropriate transport layer and exchanged between said networked entities prior to a higher level interface being established between said networked entities (*see column 5, lines 3-15 and column 7, lines 35-42, Sciacca and column 3, lines 13-23, Thompson*).
8. With respect to Claims 8 and 18, the Sciacca discloses through Thompson: a method of establishing a compatible interface between an initiator entity and a responder entity seeking to communicate across a network in the case where an interface of the initiator has at least one differing characteristic from an interface of the responder comprising the steps of: generating at least one meta-data structure providing at least one semantic information element for each entity, wherein each said semantic information element describes a characteristic of an interface capability of one of said entities (*Sciacca teaches network devices that have different configurations (different characteristics); see column 2, lines 28-38, Sciacca. The devices have structured meta-data associated with them; see column 5, lines 3-15, Sciacca*); collating said meta-data structures such that each semantic information element corresponding to the initiator's interface capability is collated with a corresponding semantic information element corresponding the responder's interface capability (*Sciacca teaches how device configurations*

*stored and managed (collated) based on semantics; see column 5, lines 3-15, Sciacca); analyzing the collated semantic information elements to determine the extent to which the initiator and the responder can generate a compatible interface (Sciacca teaches constraint checks; see at least column 5, lines 55-66, Sciacca); establishing in accordance with said analysis an interface between said initiator and said responder which enables them to communicate across the network despite the fact that the interface capabilities of the entities are different (Sciacca teaches the adjustment of device configurations so that they can comply with the needs of the infrastructure/network (in other words, so that they can communicate with the other network devices); see column 6, lines 13-22, Sciacca)*

*While Sciacca teaches the adjustment of device configurations (using structured meta-data) to ensure proper communication between devices within the network, Sciacca does not explicitly cite the use of the device interfaces. In the same field of endeavor, Thompson also teaches a device configuration adjustment system. Within Thompson's disclosure it is taught how devices have translators (interfaces) to allow devices to understand otherwise foreign communications; see column 3, lines 5-23, Thompson. The translators/interfaces work in conjunction with each network device's canonical data structure (structured meta-data). The application of translators/interfaces to the network devices allows each network device (even if they possess different communication characteristics) to communicate properly with other network*



*devices. Therefore it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Sciacca with those of Thompson for the purpose of allowing asynchronous messages to be exchanged between applications that operate in accordance with different protocols; see column 4, lines 8-10, Thompson.*

9. With regards to Claim 9, the Sciacca discloses through Thompson the meta-data structure is provided in a form suitable for indicating at least one semantic element taken from the group including: a description, a range, a default value (see column 5, lines 3-15, Sciacca).

10. The obviousness motivation applied to claims 1, 8, 18, 20 and 22 are applicable towards their respective dependent claims.

### ***Response to Arguments***

Applicant's arguments filed September 22, 2009 have been fully considered but they are not persuasive. However, in lieu of the latest claim amendments, the previously issued 101 rejection has been withdrawn. The following are the examiner's response to the applicant's concerns.

The first point of contention addressed by the applicant concerns the claimed "semantic information...describing a characteristic of an interface capability." The applicant contends that neither prior art teach such a limitation, the examiner

respectfully disagrees. Sciacca teaches the configuration database storing meta-data that describes the semantics; see column 5, lines 3-7, Sciacca. The data held within the configuration database (the semantic information), is related to interface configuration (interface capability); see column 5, line 59 - column 6, line 2, Sciacca.

The second point of contention addressed by the applicant concerns the claim limitation, "structured meta-data...describing...each of a first entity and at least one other entity, said entities seeking to communicate across a network." The applicant contends that neither prior art teach such a claim limitation, the examiner respectfully disagrees. As explained above, Sciacca teaches the configuration database storing meta-data that describes the semantics of interfaces. Sciacca discloses how this data is collected for the managed device and stored in the configuration database; see column 5, lines 3-7, Sciacca. Sciacca then also discloses how this data is collected for the client-end device and stored in the configuration database; see column 5, lines 41-52, Sciacca. This data is then used to provide a compliant interface on the managed device to the client-end device; see column 4, lines 7-12, Sciacca.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AZIZUL CHOUDHURY whose telephone number is (571)272-3909. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571) 272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 09/981,444  
Art Unit: 2445

Page 11

/A. C./  
Examiner, Art Unit 2445

/Rupal D. Dharia/  
Supervisory Patent Examiner, Art Unit 2400